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STATEMENT OF  
ADMIRAL VERN CLARK, U.S. NAVY  
CHIEF OF NAVAL OPERATIONS

BEFORE THE  
SENATE ARMED SERVICES COMMITTEE

APRIL 12, 2005

Mr. Chairman and members of the Committee, I want to express my gratitude on behalf of the men and women of your Navy for holding these hearings. These marvelous Americans -- active and reserve, uniformed and civilian -- will continue to make this nation proud as they take the fight to today's enemy, while steadily transforming our institution to meet tomorrow's challenges. Our ability to attract, train, and retain them is a testament to the health of our Service and an indicator of our proper heading as we chart our course into the future. It is also important that we provide them with every advantage - especially regarding the ships they operate - to fight and win.

## **I. SHAPING OUR NAVY FOR THE FUTURE STRATEGIC ENVIRONMENT**

Our force structure was previously built to fight two major theater wars. However, the strategic landscape is vastly different today, and this change requires additional capabilities to accommodate a wide array of missions (Figure 1). The dependence of our world on the seas, coupled with the growing challenge for all nations to ensure access in a future conflict, will emphasize the need for a decisive maritime capability able to excel in an increasingly joint environment. Emphasis on the littorals and the global nature of the terrorist threat will demand the ability to strike where and when required. Therefore the maritime domain will increase in importance as a key maneuver space for U.S. military forces.

We will continue to face the requirement to deal with traditional warfighting challenges on the high seas and ashore. We must also address the growing 21<sup>st</sup> century realities of increasing scope and scale of small-scale contingencies, such as stability operations and peacekeeping requirements, and the need to extend combat capability to deeper and longer ranges inland. The future will demand the ability to confront irregular, catastrophic, and disruptive challenges that are being introduced today and will grow over time.

**Strategic Challenges.** To meet these challenges, we must improve our strategic speed to move significant, joint combat power anywhere around the globe. U.S. military force must be immediately employable and rapidly

deployable, seizing and maintaining the initiative in any fight, anywhere.

Second, we must continue to develop "precision." As precision weaponry becomes commonplace throughout the joint force, we must develop concepts of operation and doctrine to maximize these powerful capabilities.

Third, we must establish an "unblinking eye" above and throughout the battlespace. Technological leaps in miniaturization have begun to make possible an increasing array of unmanned sensors, along with the communications networks and command and control (C<sup>2</sup>) capacity to yield pervasive awareness of the battlespace.

#### **Strategic Challenges**

- Generating Strategic Speed
- Leveraging Precision
- Establishing Persistent ISR
- Developing Joint Interdependence

We must also continue to develop the fullest measure of joint interdependence. We are more effective as a fighting force, and more efficient with taxpayer dollars, when service missions and doctrine are designed from the start to be fully integrated.

## **Strategic Environment**

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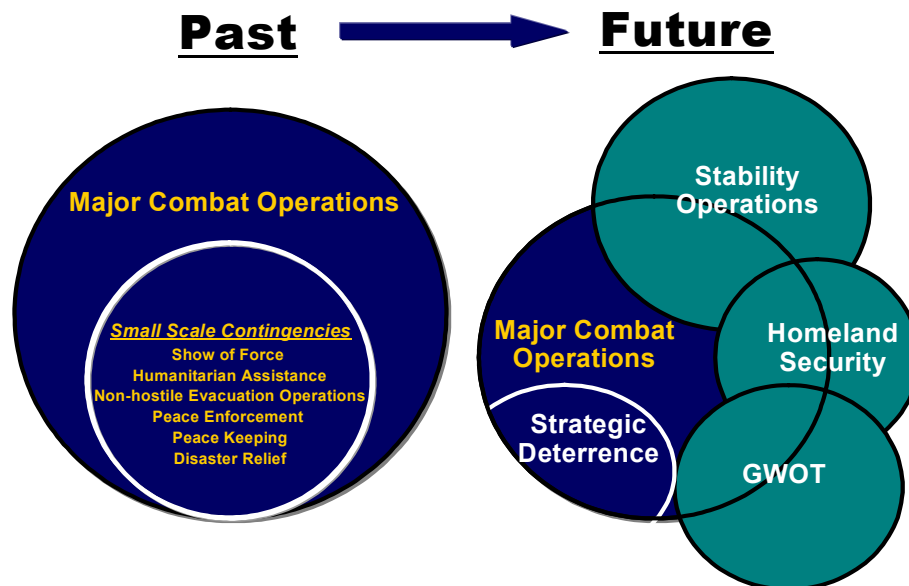


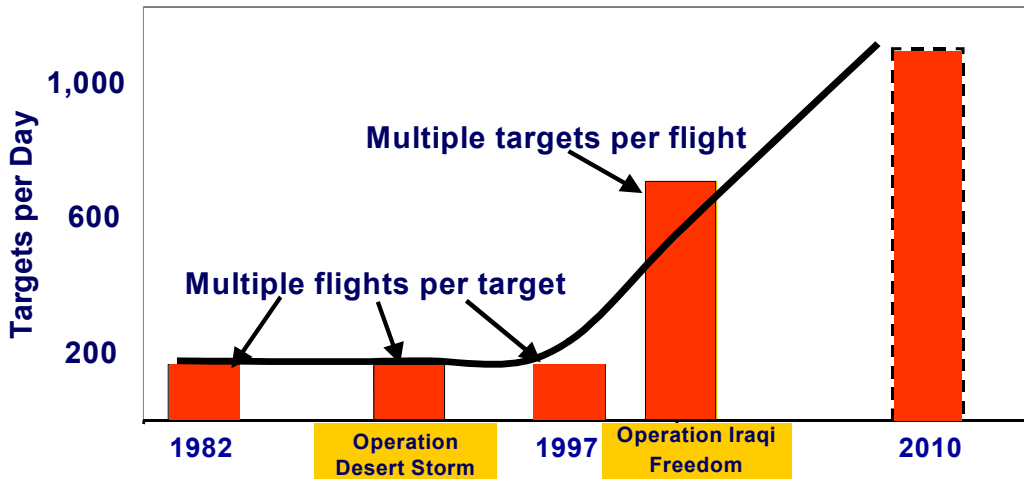
Figure 1

**Strategic Necessities: Speed & Agility.** Speed and agility are the attributes that will define our operational success. The importance of these qualities extends to the very foundations of our institution, whether we're talking about our personnel system, the size and adaptability of our technological and industrial bases, the design and function of our supporting infrastructure, or the financial planning necessary to put combat power to sea. Speed and agility, while defining our operational response, also need to characterize our acquisition process. We must find new and better ways to develop and field emerging technologies. The cycle in which this occurs needs to be measured in months not years.

The drive to increase our speed and agility means increasing the operational availability of our forces. It means developing a base structure to ensure that we are best positioned to win. And it means challenging the total joint force to be light enough, and possess the required sustainability, to deliver adaptive capability packages on shorter timelines.

**Force Capabilities.** The number of ships in the Fleet is important. But it is no longer the only, nor the most meaningful, measure of combat capability. Just as the number of people is no longer the primary yardstick by which we measure the strength or productivity of an organization, the number of ships is not the only way to gauge the Navy's health or combat capability. The capabilities of the Fleet and its location around the world are most important. In fact, today's Navy can deliver more combat power than we could twenty years ago when we had twice as many ships and half again as many people. Figure 2 for example shows, the effects of technology and new operational concepts that leverage the greatly increased capabilities of today's Fleet.

## CARRIER AIRWING AIMPOINTS PER DAY



### Improved Technology and its Effect on Operations: Multiplying Firepower

Figure 2

## II. CURRENT SHIPBUILDING

Our shipbuilding priorities reflect emerging strategic challenges, the operational requirement for speed and agility, and an understanding of evolving force capabilities. My testimony to Congress on this subject over the last five years has reflected these priorities and been consistent. My themes have been and remain:

- The acquisition mechanisms we possess today will not produce the Navy we are going to need in the 21<sup>st</sup> century.
- This highly industrialized segment of the military-industrial complex does not respond well to peak and valley, sine-cosine investment approaches.
- The ship procurement rate - dating back to the procurement holidays of the 1990's - was insufficient to maintain objective force levels and is now manifesting itself in the health of the shipbuilding industry.

- We need a system which better partners with Congress and industry to regain our buying power. Acquisition reforms and other approaches that help to stabilize production will, in our view, reduce the per unit cost of ships and increase the shipbuilding rate.
- We need a level investment approach in this industry, that when coupled with other innovations, will change the economic underpinning of shipbuilding.

In no other area of our Armed Forces do we make such large capital investments that, in turn, impact important technological and industrial sectors of our economy.

**Shipbuilding Cost Growth.** Among the greatest risks all Services face is the spiraling cost of procurement for modern military systems, and shipbuilding is no exception (Figure 3). When adjusted for inflation, the cost increase in every class of ship that we have bought over the past four decades has been incredible.

Updated: 23 Mar 05

## *Shipbuilding Qty vs. CY\$FY06B*

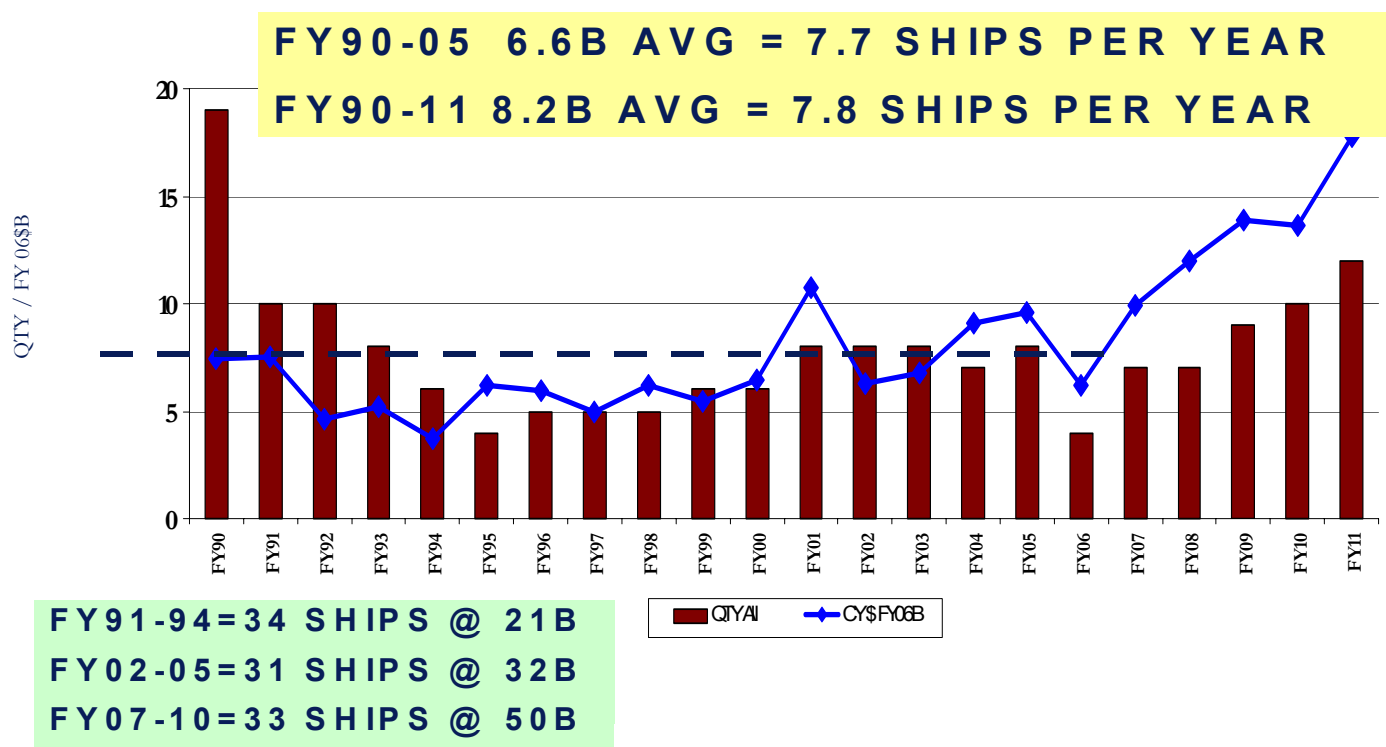


Figure 3

This tremendous increase in cost runs counter to other capital goods like automobiles, where the inflation-adjusted cost has been relatively flat over the same period of time.

## Shipbuilding Cost Growth

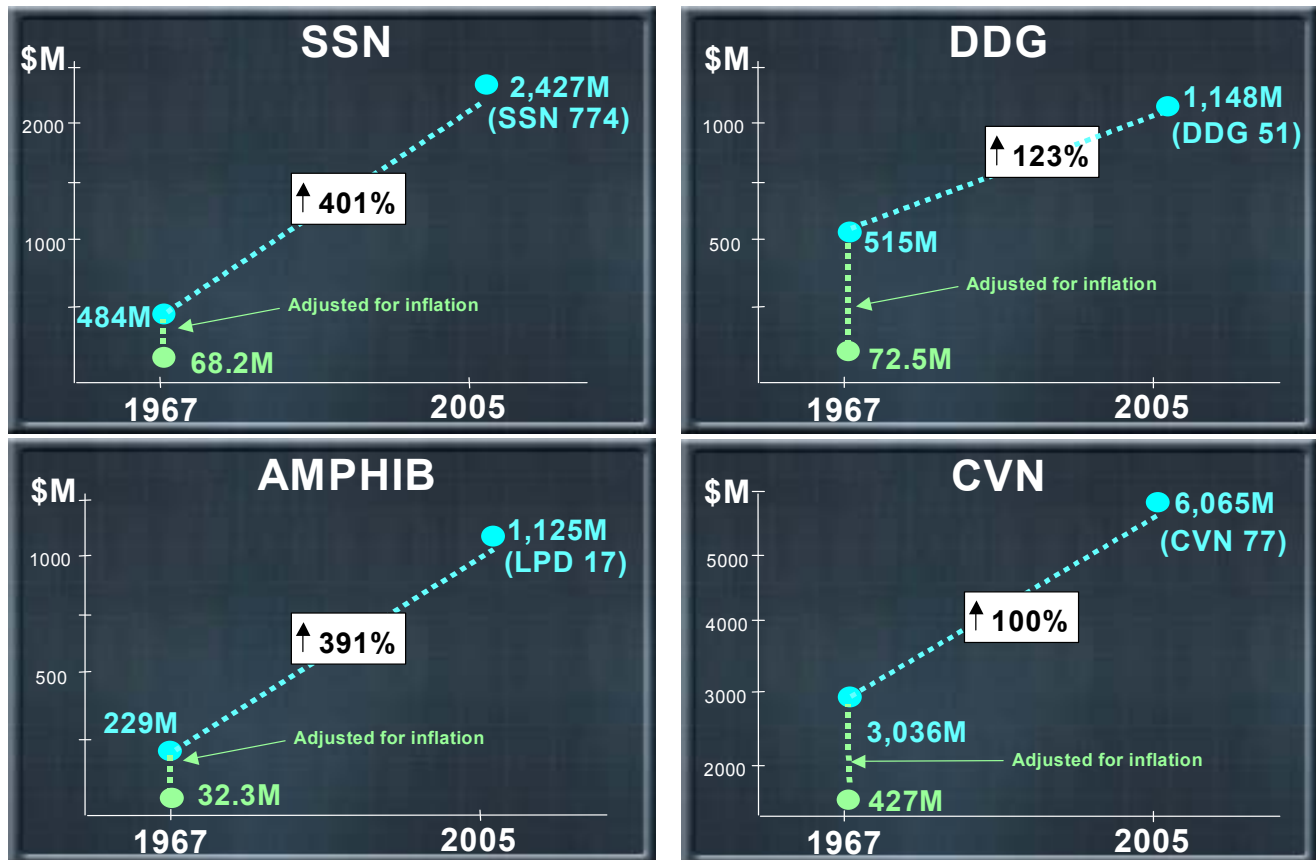


Figure 4

Figure (4) shows that shipbuilding costs have grown tremendously over the past four decades. Although newer ships emphasize greater combat capability, propulsion power, and computing technologies than their predecessors, costs have spiraled out of control; cost growth that is not explainable solely due enhanced complexity or reduced economies of scale.

This cost spiral comes at a very challenging time because, for the first time in decades, we are building entirely new types of ships in FY06 and beyond. These ships are needed because their modular nature will give us great flexibility and adaptability to fight in diverse environments against a variety of enemies. Such modularity also allows us to dramatically expand their operational capability over time with less technical and fiscal risk.

**FY06 Budget Request.** As the budget is finalized in the coming months, there will be a number of issues and processes that will impact shipbuilding across the Future Years Defense Program (FYDP), including the cost of war in Iraq, Base Realignment and Closure decisions, and the findings of the Quadrennial Defense Review. With that in mind, our Navy budget request for FY06 includes four new construction ships.

Our original plan was for six new construction ships but Congressional action and shipyard factors prevented funding the final two ships. Our investment plan across the FYDP calls for 49 new construction ships, including DD(X), LHA(R), MPF(F), CVN-21, and SSN 774s. These new ships reflect our focus on the next generation of naval combatants and sea basing capabilities.

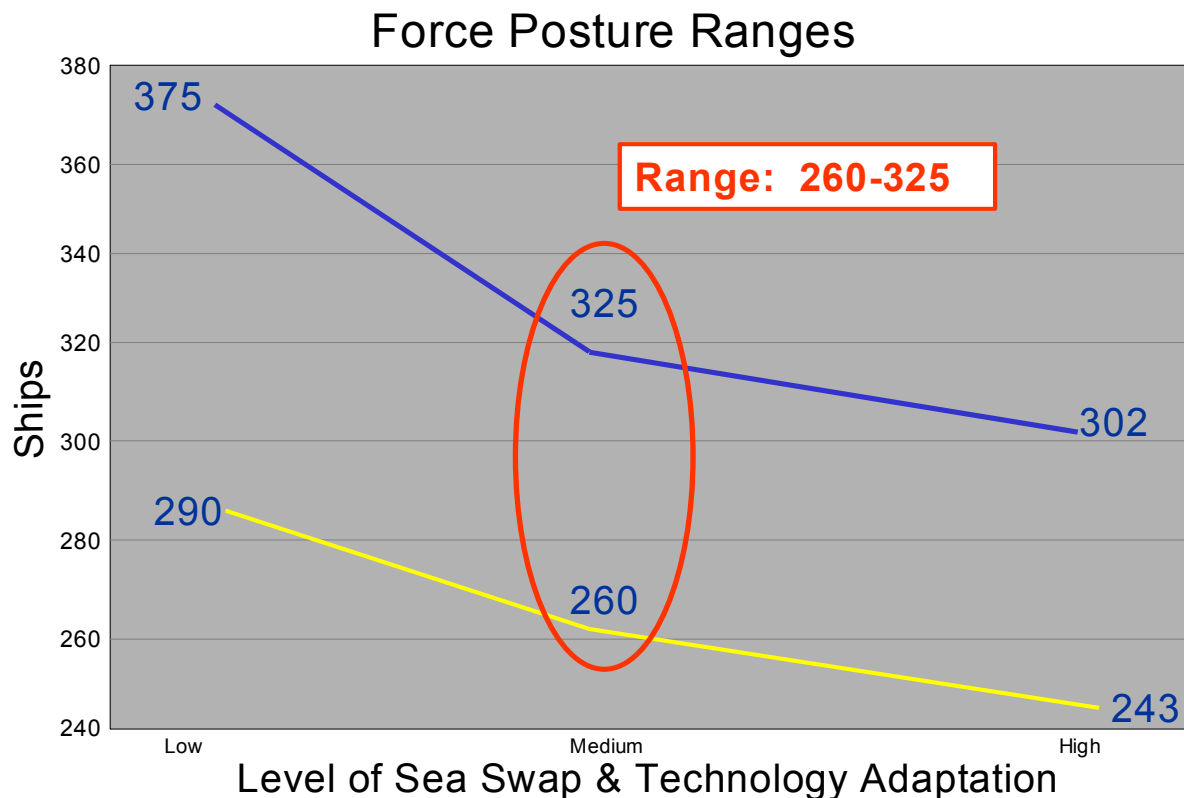
- FY06 Shipbuilding**
- Transformational gearshift
  - Four new construction ships in FY06:
    - SSN 774
    - Littoral Combat Ship
    - T-AKE
    - LPD-17

The requirement for shipbuilding will be shaped by emerging technologies, the amount of forward basing, and innovative manning concepts such as Sea Swap. Additional variables include unit operational availability and the evolving capabilities needed to perform our missions.

The following notional diagram (Figure 5) illustrates how innovative manning concepts and technological adaptation modify the number of ships required. The blue and yellow lines represent levels of combat capability and the ships required to achieve that capability. For example, the left side of the diagram shows our current number of ships (288) and a projection of ships required to meet Global War on Terror requirements (375) using traditional deployment practices. The right side of the diagram estimates the number of ships needed to achieve equivalent combat power after fully leveraging technological advances and employing



the maximum use of Sea Swap. The middle portion of the curve (in the red ellipse) shows a range of ships that assumes a less extensive use of technology and Sea Swap. This diagram illustrates how the application of new technologies and manning concepts will enable us to attain our desired future combat capability with a force structure between **260 and 325 ships**.



**Figure 5**

The power of the joint force in OIF resulted from synergy between the Services. The same concept holds true within our Navy. We seek the fullest integration of networks, sensors, weapons, and platforms. Toward that end, we are developing the next generation of surface combatants as "sea frames" -- analogous to "air frames" -- as part of a modular system. Growing research and development investments over the past few years directly support increased production of the right ships for the future in the years ahead (Figure 6).

# R&D INVESTMENT SURGES IN FY06

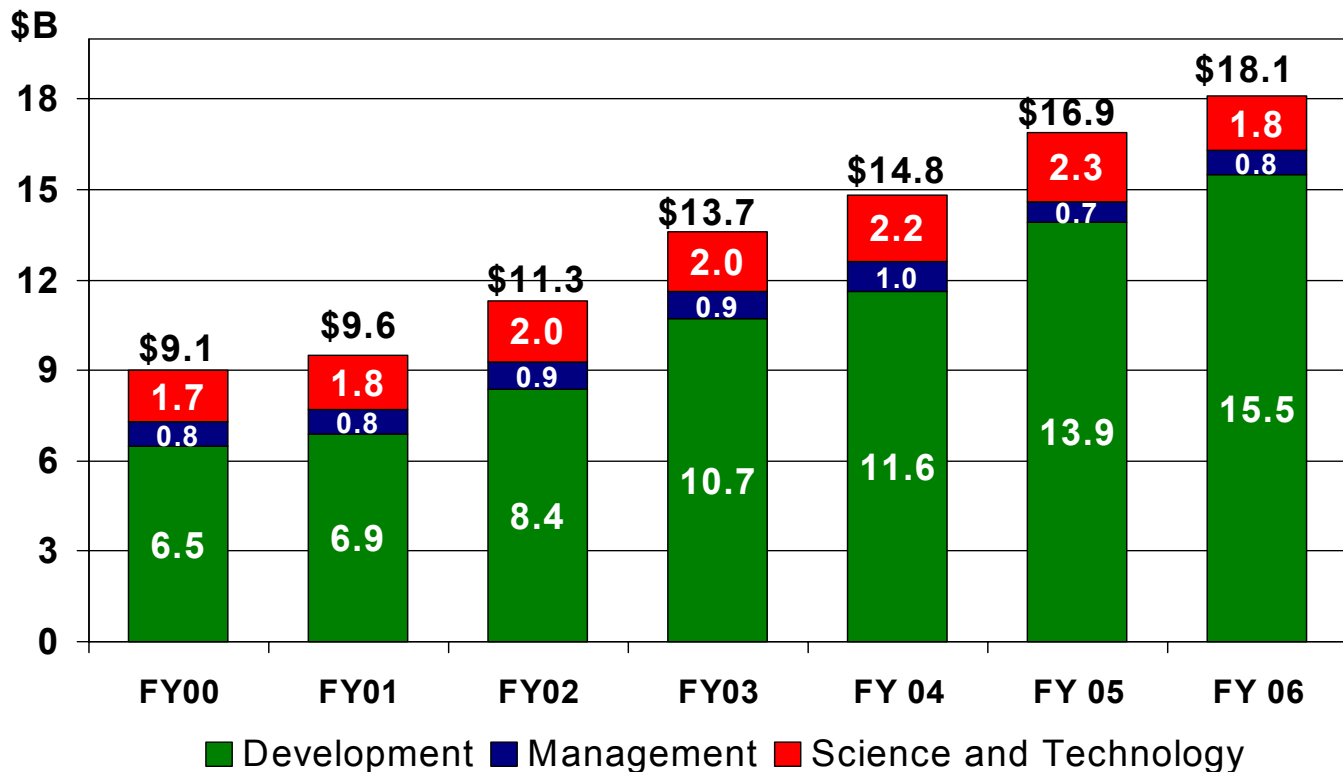
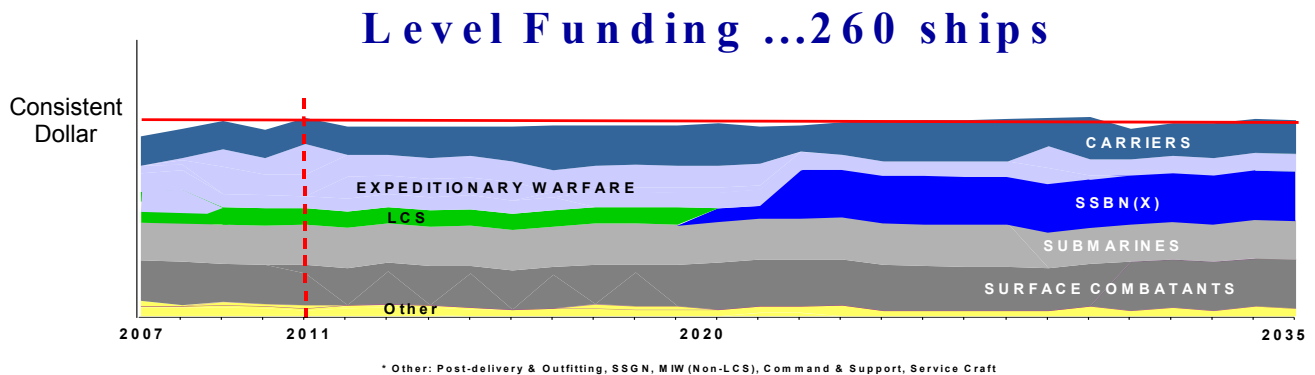


Figure 6

## III. ENHANCING NATIONAL SHIPBUILDING

The state of shipbuilding in the United States is a matter of national security and worthy of priority on the national agenda. Although there is no stand-alone solution to this challenge, we can enhance efficiency by changing shipbuilding policies. A national dialogue is critical, and I will work with the Department of Defense and the Administration to consider changes to these policies for the FY07 budget and beyond.

Although not current policy, I personally recommend modifying our practice of fully funding most ships in a single year. The current policy results in funding peaks and valleys that induce uncertainty for shipbuilders. To compensate, industry retains excess capacity, increasing costs to the Navy while trying to figure out what we will do. We will avoid this problem and produce ships more efficiently if we provide a disciplined level funding approach for shipbuilding over a period of years coupled with a set of acquisition rules, developed in partnership with industry, which optimize effectiveness and efficiency. Figure 7 shows a notional level loaded investment structure to achieve a 260 ship Navy using level funding for each year. I would personally



**Figure 7**

recommend to the Department and the Administration that we adopt this level-funding approach for the FY07 Budget and beyond.

I also personally recommend use of Research and Development funds for building the lead ships of new classes. Advance procurement, split funding, and multi-year acquisition programs round out the authorizations we need to efficiently execute a disciplined national shipbuilding plan in FY07 and beyond.

#### **IV. CONCLUSION**

To make the best shipbuilding investments, more flexible acquisition policies are needed, to help us deliver the Navy we need in the future.

Thank you for this opportunity to address my personal concerns regarding our national shipbuilding program. Thank you also for your strong and enduring support of the men and women serving our nation in the United States Navy. They are deserving of our very best efforts to build a Navy that will remain the world's finest.